

ENVIRONMENTAL TOBACCO SMOKE AND HOSPITALIZATION FOR RESPIRATORY DISEASES AMONG CHILDREN UNDER ONE YEAR OF LIFE IN BRAZILIAN STATE CAPITALS AND FEDERAL DISTRICT

Patricia Boccolini, *IESC/Universidade Federal do Rio de Janeiro, Brasil*

Cristiano Boccolini, *ENSP/Fundação Oswaldo Cruz, Brasil*

Márcia Lázaro de Carvalho, *ENSP/Fundação Oswaldo Cruz, Brasil*

Background and Aim: Passive exposure to tobacco smoke is responsible for diseases related to respiratory system. The objective of this study is to evaluate the relationship between environmental tobacco smoke and hospitalization due to pneumonia, asthma, bronchitis and bronchiolitis among children.

Methodology: This is an ecological study, which had employed Brazilian secondary data (from the Public Health System – DATASUS) of hospitalization among children under one year of life due to pneumonia, asthma, bronchitis and bronchiolitis (as three different outcomes), and the prevalence of tobacco smoking in Brazilian Capitals and the Federal District population as a proxy for environmental tobacco smoke (obtained from VIGITEL, 2008). The Rate Ratio (RR) of hospitalization was estimated by negative binomial statistical model (CI=95%) for each outcome, adjusted by the Gini Index of the city, and the prevalence of breastfeeding and low birthweight.

Results: We considered for the study 642,792 children under one year of age living in the 26 Brazilian Capitals and Federal District in 2008. The prevalence of smokers in the city population was associated with a higher rate of hospitalization for pneumonia (RR=1.108, 95%CI=1.009-1.216), asthma (RR=1.187, 95%CI=1.047-1.344), and acute bronchitis or bronchiolitis (RR=1.170, 95%CI=1.008-1.357) among children under one year old. The more unequal the conditions of people's income (Gini index) and the higher the prevalence of low birth weight, highest are the rates of hospitalization; and the more prevalent the breastfeeding, lowest are the hospitalization rates.

Conclusion: The prevalence of smoking appears to be associated to hospitalizations for respiratory problems in children under one year of life, and the ecological study was evidenced as an useful tool to evaluate these associations, providing data for policy and public health management.